

REMARKS

Claims 14-26 are pending in the application, with claims 17, 18, and 21-26 having been withdrawn from further consideration. By the present communication, claims 14, 16, 19, and 20 have been amended and new claims 27-35 have been added to define Applicants' invention with greater particularity. No new matter is introduced as all amendments are supported by the specification and the claims as originally filed. In view of these amendments, claim 15 has been canceled without prejudice or disclaimer. Upon entry of the present amendment, claims 14, 16, 19, 20, and 27-35 will remain under active consideration.

Restriction Requirement

The restriction requirement and election of species requirement have been made final. Applicants, therefore, remind the Examiner that in the event that the elected product claims are found allowable, Applicants are entitled to the rejoinder of the process claims depending therefrom (i.e., claims 21-24) and the examination of those claims for patentability in accordance with 37 CFR § 1.104. Furthermore, Applicants request rejoinder of the remaining species, upon allowance of a generic product claim.

Objection to the Specification

Applicants respectfully traverse the Examiner's objection to the specification as allegedly containing various informalities. Specifically, the Examiner asserts that the Abstract contains a spelling error (i.e., "proteins"). The Abstract is amended herein to correct this apparent typographical error.

The Examiner further asserts that the trademark "Dynabeads" on page 15, should be capitalized and accompanied by generic terminology. Consistent with the Examiner's request, as amended herein, this trademark now appears in upper case letters and is accompanied by generic terminology (i.e., "streptavidin-coupled, magnetic, polystyrene beads").

Applicants respectfully disagree with the Examiner's assertion that "[t]here is no brief description of the drawings for Figures 1-7" (Office Action, page 3, item 4c). To the contrary, such descriptions of the figures may be found in the specification at page 9, lines 7-25.

With respect to the Examiner's requirement that reference to the parent application, Serial No. 09/831,019, be updated to include the status, this reference is amended herein to reflect that that case has been abandoned.

Accordingly reconsideration and withdrawal of this objection are respectfully requested.

Rejection under 35 U.S.C. § 112, 1st Paragraph (Written Description)

The rejection of claims 14-16, 19, and 20 under 35 U.S.C. § 112, 1st paragraph as allegedly failing to comply with the written description requirement is respectfully traversed.

Specifically, the Examiner asserts that "[t]he specification does not disclose what the zone of interaction of a heavy chain with the CD8 co-receptor is" (Office Action, page 5). Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, claim 14 has been amended herein to recite "the $\alpha 3$ domain of the zone of interaction of a heavy chain." Support for this amendment may be found at, for example, page 5, lines 8-23.

The Examiner further asserts that "[t]he specification does not disclose...what mutations or other modifications are sufficient to confer the property of reducing or suppressing the CD8/heavy chain affinity of interaction" (Office Action, page 5). Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to remove reference to "suppressing" of the CD8/heavy chain affinity of interaction.

It is respectfully submitted that the present claims are fully supported by the specification. For example, the specification describes an exemplary tetramer of an MHC heavy chain modified in the $\alpha 3$ domain (*see*, for example, page 9, line 27 to page 10, line 22) which is shown to have reduced affinity for the CD8 co-receptor (*see*, for example, page 10, line 23 to page 13, line 25).

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Accordingly reconsideration and withdrawal of this rejection are respectfully requested.

Rejection under 35 U.S.C. § 112, 1st Paragraph (Enablement)

The rejection of claims 14-16, 19, and 20 under 35 U.S.C. § 112, 1st paragraph as allegedly failing to comply with the enablement requirement is respectfully traversed.

The Examiner asserts that the specification is allegedly not enabling for the multimer “wherein the modification leads to suppression of the affinity of interaction between the heavy chain and CD8”. However, the Examiner acknowledges that the specification is “enabling for the claimed multimer built up from recombinant protein analogues of Class I MHC characterized in that the proteins comprise at least one modification in the zone of interaction of a heavy chain with the CD8 co-receptor leading to a reduction of the affinity of the interaction between the heavy chain and CD8 (Office Action, page 6).

It, therefore, appears that this rejection is based on the term “suppression.” Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, claim 14 has been amended herein to remove reference to “suppression.”

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Rejections under 35 U.S.C. § 112, 2nd Paragraph

The rejections of claims 14-16, 19, and 20 under 35 U.S.C. § 112, 2nd paragraph as allegedly being indefinite for various reasons are respectfully traversed.

The Examiner asserts that the term “multimers” in claim 14 is allegedly indefinite for being in the plural, rather than the singular. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to recite this term in the singular. Withdrawal of this rejection is respectfully requested.

The Examiner further asserts that the phrase “proteins analogues” in claim 14 is allegedly indefinite on the ground that is unclear if “protein analogues” is the intended phrase. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to recite “protein analogue.” Withdrawal of this rejection is respectfully requested.

The Examiner further asserts that the phrase “at least one modification in the zone of interaction of a heavy chain with the CD8 co-receptor of T lymphocytes” in claim 14 is allegedly indefinite because it is unclear what the “zone of interaction” is. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to recite “the $\alpha 3$ domain of the zone of interaction of a heavy chain.” Withdrawal of this rejection is respectfully requested.

The Examiner further asserts that the phrase “[m]ultimers built up from recombinant proteins analogues” in claim 14 is allegedly indefinite because it is unclear what “built up” means. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to recite “a multimer of recombinant protein analogues.” Withdrawal of this rejection is respectfully requested.

The Examiner further asserts that the term “modification” in claims 14 and 15 is allegedly indefinite because it is unclear what is meant by this term. Applicants respectfully disagree with the Examiner’s assertion. To the contrary, the term “modification” as used in reference to a protein would be understood by the skilled artisan. Moreover, exemplary modifications are described in the specification at, for example, page 5, lines 8-23. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

The Examiner further asserts that the phrase “reduction, or even suppression” in claim 14 is allegedly indefinite thus rendering the metes and bounds of the claim unclear. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to delete reference to “suppression.” Withdrawal of this rejection is respectfully requested.

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The Examiner further asserts that the phrase "characterized in that the modification relates to the $\alpha 3$ domain of the heavy chain" in claim 15 is allegedly indefinite because it is unclear what "relates" means. This rejection has been rendered moot by the cancellation herein of claim 15.

The Examiner further asserts that the phrase "in that they are in the form of complexes with antigenic peptides" in claim 19 is unclear. It is respectfully submitted that the skilled artisan would readily understand this claim to mean that the multimers are charged with antigenic peptides through the binding of such peptides to individual heavy chains within the multimeric complex. Without acquiescing to the reasoning offered by the Examiner and to expedite prosecution, this claim has been amended herein to recite "the multimer is charged with antigenic peptides." Support for this amendment may be found at, for example, page 4, lines 20-32. Withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. § 102(a)

The rejections of claims 14-16, 19, and 20 under 35 U.S.C. § 102(a) as allegedly being anticipated by Bodinier et al. (Nature Medicine 6(6):707-10, June 2000) (herein after "Bodinier") is respectfully traversed.

Applicants submit that Bodinier is not available as prior art under § 102(a) because this reference was published after the earliest priority date to which the present application is entitled. The present application is a US National Stage filing under 35 U.S.C. § 371 of International Application PCT/FR00/02443, filed September 5, 2000, which claims priority to French Patent Application No. 99 11133, filed September 6, 1999. Attached is a certification that the English translation (which is the English translation of the French PCT application) is a true and correct translation of the French priority document (certified copy attached). Thus, Applicants have satisfied the requirements for obtaining benefit of the priority date of the French application, September 6, 1999. Accordingly, Bodinier is not prior art with respect to the present application.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

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Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the claims are in condition for allowance and a notice to that effect is respectfully requested. The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to this application.

The Commissioner is hereby authorized to charge the fee in the amount of \$120.00 to cover a One-Month Petition for Extension of Time fee as well as the fee in the amount of \$180.00 for an Information Disclosure Statement to Deposit Account No. 07-1896. No other fees are believed to be due in connection with filing this paper. However, the Commissioner is hereby authorized to charge any other fees associated with the filing submitted herewith, or credit any overpayments to Deposit Account No. 07-1896 referencing the above-identified attorney docket number. A copy of the Transmittal Sheet is enclosed.

Respectfully submitted,

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Lisa A. Haile, Reg. No. 54,119
for Lisa A. Haile
Registration No. 38,347
Telephone: (858) 677-1456
Facsimile: (858) 677-1465

USPTO Customer Number 47975
Beckman Coulter, Inc.
c/o DLA PIPER US LLP
4365 Executive Drive, Suite 1100
San Diego, California 92121-2133

Enclosures: Certificate of Translation and attached English translation
Certified copy of French Application No. 99 11133